

Dr.Omaina

Tabanidae

***Tabanus* sp. (horse fly)**

The horse fly is a large fly (10-30 mm in length) that is a serious nuisance to livestock. They take a large amount of blood from a host which is used to produce eggs. They can transmit several animal pathogens mechanically.

Description:

The eggs are 1-3 mm long and are deposited in masses. The eggs are white upon being laid but darken to gray, brown or black.

The larvae are large, whitish and spindle-shaped. They have strong mouthparts that are used to capture and subdue their prey. The larvae grow in aquatic and semi-aquatic habitats, such as; mud or saturated vegetations in marshes or near pond or creek margins.

Adults are stout-bodied with prominent antennae and brilliantly patterned eyes that fade to black after they die. They have large mouthparts that consist of blade-like mandibles and maxillary laciniae that assist in lacerating the skin. They are pool feeders, which means they cut a hole in the skin and lap up the pooling blood. The males do not take a blood meal; only the females do in order to produce eggs. Adults are very strong flies and can travel several miles to find a blood source.

Animals attacked:

Cattle, horses, other mammals at times and humans

Life cycle

Similar to all flies, horse flies develop from egg to adult via a process of "complete metamorphosis." This means the last larval stage passes through a non-feeding pupal stage, from which the adult eventually emerges.

The life cycle of horse flies begins with the emergence of adults from late spring into summer, depending on the species. Upon becoming active, adults of both sexes feed on energy-rich sugars in nectar, plant sap, or honey dew produced by sap-sucking insects such as aphids and scale insects. Mating of the few species of that have been observed takes place in flight. Females of some species are capable of developing an initial batch of eggs without taking a blood meal (autogeny), otherwise blood is required for the development of eggs. Females search for a place to lay a single mass of eggs consisting of 100-800 eggs, depending on the species. Egg masses of most species that have been studied are laid on the underside of leaves or along the stems of emergent vegetation growing in wetlands. Hatching occurs in approximately 2-3 days, and newly emerged larvae drop down into water or saturated soil in which they feed and develop.

Veterinary important

Horse flies and deer flies are significant livestock pests with their painful and persistent biting behavior. Heavy attacks can lead to reductions in weight gains of beef cattle, reduced milk yield, reduced feed utilization efficiencies and hide damage from the puncture wounds. Horses under attack will be irritable and distracted by trying to avoid from being bitten.

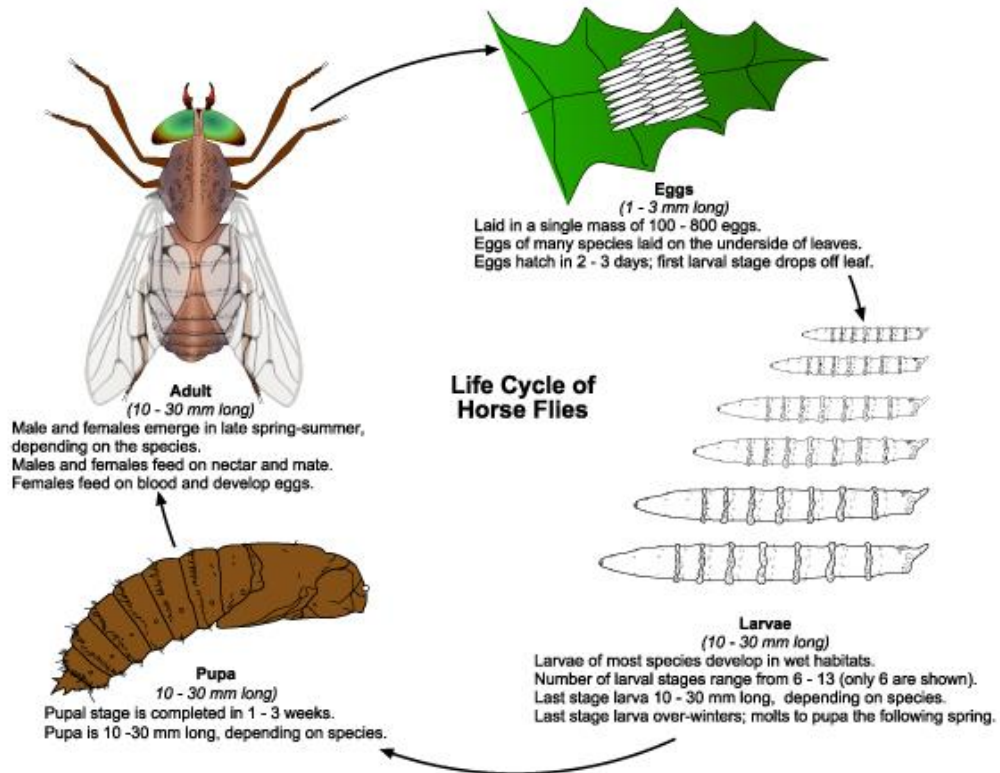
The adult flies serve as vectors for many disease agents (viruses, bacteria, protozoans and nematodes) of animals.

Disease Transmission:

Equine Infectious Anemia (EIA), sometimes referred to as swamp fever, is common in the southeastern US and is mechanically (on the body of the fly) transmitted to horses and other equids. It is a viral disease that causes lethargy, weight loss, and sometimes death in an affected animal. There are two strains of the virus; one is more intense than the other. An acutely infected horse almost always dies quickly. A chronically infected horse will eventually die of complications or unapparent carriers may live without obvious health problems.

Control:

It is very difficult to achieve horse fly and deer fly control. An area with horse flies typically has many species with many different seasonal occurrences. In addition, the flies only stay in contact with a host for a few minutes to get the bloodmeal and then they are gone until they need to eat again which is every 3-4 days. Using topical pesticides is ineffective due to horse fly behavior, but short term control is possible. Aerial applications and treating for the larvae are ineffective. The best option is to provide shelter for the animals or pasturing them away from infested areas. Traps have been proven to provide effective control. Two trap options are box traps and CO₂ baited sticky traps. Biological control agents can offer some protection by feasting on or parasitizing the larvae and eggs.



Lec. 1

1-Tabanus can attack animals

2- Mention briefly the veterinary important of Tabanus?

3- Draw the life cycle of insects?